

Amendments to the Claims:

1. (Previously Presented) A wearable device for detecting, processing, analyzing and reporting predetermined physical states of a human body, the device comprising:

a plurality of electrodes, including at least one pair of sense electrodes and a reference electrode, each of said electrodes configured to make electrical connection with a surface of the body; and

an electronics module, said module in electrical communication with each of said plurality of electrodes, said module including a power source, and said module processing and analyzing signals provided by said plurality of electrodes, the reference electrode being mounted on a body facing bottom surface of the electronics module, the electronics module having at least a pair of conductive pads formed on at least one of the bottom surface and a top surface of the electronics module, the pair of sense electrodes being connected directly to the conductive pads;

a single adhesive membrane which covers the plurality of electrodes and the electronics module to enable said wearable device to adhere to the surface of the body with the reference and sense electrodes making electrical connection with the body.

2. (Previously Presented) The device of Claim 1, wherein said electronics module includes a wireless transmitter and, upon detection by said electronics module of a predetermined condition, the wireless transmitter transmits an alarm status.

3. (Currently Amended) The device of claim 2, wherein said electronics module further includes a deactivation mechanism by which a user ~~to~~can prevent the wireless transmitter from continuing to transmit the alarm status.

4. (Original) The device of Claim 1, wherein said reference electrode is a dry electrode.

5. (Currently Amended) A wearable device for detecting, processing, analyzing and reporting predetermined physical states of a human body, the device comprising:

a plurality of electrodes, including at least one pair of sense electrodes and a reference electrode, each of said electrodes configured to be adhesively attached to a surface of the body, said reference electrode being a dry electrode; ~~said reference electrode being integrally formed with said electronics module; and~~

an electronics module, said module in electrical communication with each of said plurality of electrodes, said module including a power source, and said module processing and analyzing signals provided by said plurality of electrodes;

wherein said plurality of electrodes and said electronics module are covered by a single adhesive membrane to enable said wearable device to adhere to the surface of the body; and

wherein said reference electrode is integrally formed with said electronics module.

6. (Currently Amended) The device of claim 5, wherein said electronics module has a top surface and a bottom surface, and wherein a plurality of conductive pads are formed on at least one of the top and bottom surfaces.

7. (Canceled) The device of Claim 1, wherein said electronics module has a top surface and a bottom surface, and wherein a plurality of conductive pads are formed on the bottom surface.

8. (Previously Presented) The device of claim 1, wherein at least one of the plurality of the conductive pads is silver plated on said electronics module.

9. (Previously Presented) The device of claim 5, wherein the pair of sense electrodes are integral to a breathable cloth matrix.

10. (Previously Presented) The device of claim 3, wherein the electronics module includes a local alarm which alerts the user of the alarm status.

11. (Previously Presented) The device of Claim 1, wherein the reference electrode is positioned between the pair of sense electrodes.

12. (Previously Presented) The device of claim 11, wherein the sense electrodes are at least two inches apart.

13. (Previously Presented) The device of claim 5, further comprising a local alarm which provides a person wearing said device an indication that an alarm status is being indicated.

14. (Previously Presented) The device of Claim 13, further comprising a deactivation mechanism, operated by the wearer to prevent said device from wirelessly transmitting a further indication of the alarm status to a remote station.

15. (Previously Presented) An apparatus for detecting, processing, analyzing and reporting physiological conditions, comprising:

a pair of sensor electrodes connected at one end with a top surface of a processing module and extending to a second end which contacts a surface of a human body for detecting physiological data;

a reference electrode disposed on a bottom surface of the processing module to contact the surface of the human body under the electronics module;

the processing module analyzing and processing signals provided from electrodes into physiological output data;

wherein said plurality of electrodes and said processing module are mounted within the confines of a single flexible adhesive material adapted to be adhered to the surface of the human body, such that said electrodes and said processing module avoid interfering with the motion and flexibility of said human body.

16. (Currently Amended) The apparatus of Claim 15, wherein said processing module analyzes the electrode signals for an alarm condition and the processing module further includes a transmitter which transmits an alarm signal to a remote device when the processing module detects ~~and~~an alarm condition.

17. (Previously Presented) The apparatus of claim 16, wherein the processing module includes a local alarm which alerts a user to the detected alarm condition .

18. (Previously Presented) The apparatus of claim 17, wherein the processing module further includes a deactivating mechanism operated by the wearer to stop transmitting the alarm signal to the remote device.